

Applicant Name Dayton/Lake County Water and Sewer District
Project Name Dayton Wastewater Improvement Project

Project Abstract

The unincorporated Community of Dayton sits on the West Shore of Flathead Lake near the northern end of both Lake County and the Flathead Indian Reservation. The townsite was platted in the early part of the last century and is home to 86 families, a church, restaurant, school, and the largest marina dedicated to sailing boats on the lake. A water and sewer district was formed in 2001 to find a way to confront the ongoing problem of periodic local flooding, causing septic discharges and contaminating the community and Flathead Lake.

The community has no public facilities and depends on shallow wells and direct pipes into the lake for domestic water and individual septic systems for sewage treatment. The platted lots are too small to allow the development of both a well and a septic system on the same lot so residents own three or four lots to get the required space. An impervious clay layer of soil exists, lying from 12 to 50 feet below the surface. This layer narrowly defines the potential treatment layer for septic effluent and tends to channel groundwater from the Dayton Creek drainage and any contaminants directly into the lake without allowing the normal soil treatment of septic that a deeper and less active system offers.

This shallow soil profile and high groundwater due to its proximity to the lake increases the likelihood of periodic local flooding during periods of spring runoff. Unfortunately, much of this flooding often occurs over existing septic drainfields causing effluent to mix with the flood waters and spread throughout the community before draining into the lake.

The district proposes to construct a sewage collection and treatment system. The collection system will consist of 15,000 feet of pipe and two lift stations. The collected effluent will be pumped to a facultative lagoon system, disinfected, and spray-irrigated on 30 acres of crop land.